Mathematical Physics

Volume 128 1990

Chief Editor A. Jaffe, Cambridge, MA

Editorial Board M. Aizenman, New York, NY

L. Alvarez-Gaumé, Genève

H. Araki, Kyoto

A. Connes, Bures-sur-Yvette

J.-P. Eckmann, Genève

M. E. Fisher, College Park, MD

J. Fröhlich, Zürich

K. Gawedzki, Bures-sur-Yvette

J. L. Lebowitz, New Brunswick, NJ

J. Mather, Princeton, NJ

G. Parisi, Roma

B. Simon, Pasadena, CA

Ya. G. Sinai, Moscow

T. Spencer, Princeton, NJ

S.-T. Yau, Cambridge, MA

Advisory Board M. F. Atiyah, Oxford

F. Hirzebruch, Bonn

G. 't Hooft, Utrecht

R. Schrieffer, Santa Barbara, CA

I. Singer, Cambridge, MA

C. N. Yang, Stony Brook, NY



Springer International

Copyright

Submission of a manuscript implies: that the work described has not been published before (except in the form of an abstract or as part of a published lecture, review, or thesis); that it is not under consideration for publication elsewhere; that its publication has been approved by all coauthors, if any, as well as by the responsible authorities at the institute where the work has been carried out; that, if and when the manuscript is accepted for publication, the authors agree to automatic transfer of the copyright to the publisher; and that the manuscript will not be published elsewhere in any language without the consent of the copyright holders.

All articles published in this journal are protected by copyright, which covers the exclusive rights to reproduce and distribute the article (e. g., as offprints), as well as all translation rights. No material published in this journal may be reproduced photographically or stored on microfilm, in electronic data bases, video disks, etc., without first obtaining written permission from the publisher.

The use of general descriptive names, trade names, trademarks, etc., in this publication, even if not specifically identified, does not imply that these names are not protected by the relevant laws and regulations.

While the advice and information in this journal is believed to be true and accurate at the date of its going to press, neither the authors, the editors, nor the publisher can accept any legal responsibility for any errors or omissions that may be made. The publisher makes no warranty, express or implied, with respect to the material contained herein.

Special regulations for photocopies in the USA:

Photocopies may be made for personal or in-house use beyond the limitations stipulated under Section 107 or 108 of U.S. Copyright Law, provided a fee is paid. This fee is US \$ 0.20 per page, or a minimum of US \$ 1.00 if an article contains fewer than five pages. All fees should be paid to the Copyright Clearance Center, Inc., 21 Congress Street, Salem, MA 01970, USA, stating the ISSN 0010-3616, the volume, and the first and last page numbers of each article copied. The copyright owner's consent does not include copying for general distribution, promotion, new works, or resale. In these cases, specific written permission must first be obtained from the publisher.

Springer-Verlag Berlin Heidelberg New York Tokyo Hong Kong Printera: Brühlsche Universitätsdruckerei, Giessen Printed in Germany – © Springer-Verlag Berlin Heidelberg 1990 Springer-Verlag GmbH & Co KG, D-1000 Berlin 33

Contents

- Alekseev, A., Shatashvili, S.: From Geometric Quantization to Conformal Field Theory 197
- Anghel, N.:L²-Index Formulae for Perturbed Dirac Operators 77
- Aspinwall, P.: (2,2)-Superconformal Field
 Theories near Orbifold Points 593
- Avron, J. E., Howland, J. S., Simon, B.: Adiabatic Theorems for Dense Point Spectra 497
- Beggs, E. J.: Solitons in the Chiral Equation 131
- Berg, M. van den, Dorlas, T. C., Lewis, J. T., Pulé, J. V.: The Pressure in the Huang-Yang-Luttinger Model of an Interacting Boson Gas 231
- Bergshoeff, E., Blencowe, M. P., Stelle, K. S.: Area-Preserving Diffeomorphisms and Higher-Spin Algebras 213
- Bleher, P. M.: Extremity of the Disordered Phase in the Ising Model on the Bethe Lattice 411
- Blencowe, M. P., → Bergshoeff, E., et al. 213
- Dorlas, T. C., → Berg, M. van den, et al. 231
- Eckmann, J.-P., Epstein, H.: Bounds on the Unstable Eigenvalue for Period Doubling 427
- Englisch, H., Kirsch, W., Schröder, M., Simon, B.: Random Hamiltonians Ergodic in All But One Direction 613
- Epstein, H., → Eckmann, J.-P. 427

- Falqui, G., Reina, C.: A Note on the Global Structure of Supermoduli Spaces 247
- Fefferman, C. L., Seco L. A.: Asymptotic Neutrality of Large Ions 109
- Feigin, B. L., Frenkel, E. V.: Affine Kac-Moody Algebras and Semi-Infinite Flag Manifolds 161
- Fernandez, C., Lavine R.: Lower Bounds for Resonance Widths in Potential and Obstacle Scattering 263
- Fisch, J. M. L., Henneaux, M.: Homological Perturbation Theory and the Algebraic Structure of the Antifield-Antibracket Formalism for Gauge Theories 627
- Frenkel, E. V. → Feigin, B. L. 161
- Goderis, D., Verbeure, A., Vets, P.: Dynamics of Fluctuations for Quantum Lattice Systems 533
- Graffi, S., Parmeggiani: Quantum Evolution and Classical Flow in Complex Phase Space 393
- Hara, T., Slade, G.: Mean-Field Critical Behaviour for Percolation in High Dimensions 333
- Henneaux, M. → Fisch, J. M. L. 627
- Howland, J. S. → Avron, J. E., et al. 497
- Jaskólski, Z.: The Polyakov Path Integral over Bordered Surfaces (The Open String Amplitudes) 285
- Kirsch, W., → Englisch, H., et al. 613

Klein, A., Perez, J. F.: Localization in the Ground-State of the One Dimensional X-Y Model with a Random Transverse Field 99

Superspace 191

Some Applications 565

Klein, M., Seiler, R.: Power-Law-Corrections to the Kubo Formula Vanish in Quantum Hall Systems 141

Lavine, R., → Fernandez, C. 263 Lewis, J. T., → Berg, M. van den, et al. 231 Lindström, U., Röcek, M.: N=2 Super Yang-Mills Theory in Projective

Marquard, U., → Wit, B. de, et al. 39 Mimachi, K., → Noumi, M. 521 Montgomery, R.: Isoholonomic Problems and

Nakamura, Y.: Moduli Space of SU(2) Monopoles and Complex Cyclic-Toda Hierarchy 509 Nicolai, H., → Wit, B. de, et al. 39

Noumi, M., Mimachi, K.: Quantum 2-Spheres and Big q-Jacobi Polinomials 521

Parmeggiani, A., → Graffi, S. 393 Perez, J. F., → Klein, A. 99 Pulé, J. V., → Berg, M. van den, et al. 231

Ramadas, T. R.: Chern-Simons Gauge Theory and Projectively Flat Vector Bundles on $\mathcal{M}_{\mathbb{R}}$ 421 Reina, C., → Falqui, G. 247

Roček, M., → Lindström, U. 191

Schröder, M., → Englisch, H., et al. 613 Seco, L. A., → Fefferman, C. L. 109

Seiler, R., → Klein, M. 141

Series, C. M., Sinai, Ya. G.: Ising Models on the Lobachevsky Plane 63

Shatashvili, S., → Alekseev, A. 197

Simon, B., → Avron, J. E., et al. 497

Simon, B., → Englisch, H., et al. 613

Sinai, Ya. G., → Series, C. M. 63 Slade, G., → Hara, T. 333

Smit, D.-J.: A Quantum Group Structure in Integrable Conformal Field Theories 1

Stelle, K. S., → Bergshoeff, E., et al. 213

Strien, S. van: Hyperbolicity and Invariant Measures for General C2 Interval Maps Satisfying the Misiurewicz Condition 437

Verbeure, A., → Goderis, D., et al. 533 Vets, P., → Goderis, D., et al. 533

Ward, R. S.: Classical Solutions of the Chiral Model, Unitons, and Holomorphic Vector Bundles 319

Wit, B. de, Marquard, U., Nicolai, H.: Area-Preserving Diffeomorphisms and Supermembrane Lorentz Invariance 39

Zhou, X.: Inverse Scattering Transform for the Time Dependent Schrödinger Equation with Applications to the KPI Equation 551

Indexed in Current Contents Evaluated and abstracted for PHYS on STN

